

## Gastrointestinal (GI) Bleeds

- Upper GI bleeding – Bleeding in the esophagus, stomach, or the beginning of your small intestine.
- Lower GI bleeding – Bleeding in the small intestine, large intestine (colon), rectum, or anus.
- Frank (obvious) bleeding – Active bleeding that can be easily seen. For example, you may vomit blood or see blood in your BM (bowel movement).
- Occult (hidden) bleeding – Slow bleeding that cannot be seen easily. Tests may be needed to find occult (oh-KULT) bleeding.
- Acute GI bleeding – Blood loss that is new or sudden, and lasts for only a short time.
- Chronic GI bleeding – Blood loss that has been going on for a long time, or that comes back often.

### What causes bleeding in the digestive tract?

Stomach acid can cause inflammation that may lead to bleeding at the lower end of the esophagus. Sometimes a muscle between the esophagus and stomach fails to close properly and allows the return of food and stomach juices into the esophagus, causing esophagitis. In another, unrelated condition, enlarged veins (varices) at the lower end of the esophagus may rupture and bleed. Cirrhosis of the liver is the most common cause of esophageal varices. Esophageal bleeding can be caused by a tear in the lining of the esophagus (Mallory-Weiss syndrome). Mallory-Weiss syndrome usually results from vomiting but may also be caused by increased pressure in the abdomen from coughing, hiatal hernia, or childbirth. Esophageal cancer can cause bleeding.

Inflammation in the stomach (gastritis) or peptic ulcers can be the source of bleeding. Irritation leading to ulcers can be caused by infection attributed to an organism called *Helicobacter pylori* (*H. pylori*). Irritation can also be caused by aspirin, medicines containing aspirin and other non-steroidal anti-inflammatory (NSAIDS) medicines such as Motrin or ibuprofen. Stomach acid can then worsen the irritation until ulcers form. These ulcers can enlarge and erode through a blood vessel causing bleeding. Smoking is known to slow the healing process. Alcohol is a known irritant and should be avoided.

A common source of bleeding from the upper digestive tract is ulcers in the duodenum (the

upper small intestine). Duodenal ulcers are most commonly caused by infection with *H. pylori* bacteria or drugs such as aspirin or NSAIDs.

In the lower digestive tract, the large intestine and rectum are frequent sites of bleeding. Hemorrhoids are the most common cause of visible blood in the digestive tract. Hemorrhoids are enlarged veins in the anal area that can rupture and produce bright red blood, which can show up in the toilet or on toilet paper. If red blood is seen, however, it is essential to exclude other causes of bleeding since the anal area may also be the site of cuts (fissures), inflammation, or cancer.

Benign growths or polyps of the colon are very common and are thought to be forerunners of cancer. These growths can cause either bright red blood or occult bleeding. Colorectal cancer is the second most frequent of all cancers in the U.S.

Inflammation from various causes can produce extensive bleeding from the colon. Different intestinal infections can cause inflammation and bloody diarrhea. Ulcerative colitis can produce inflammation and extensive surface bleeding from tiny ulcerations. Crohn's disease of the large intestine can also produce bleeding.

Diverticular disease caused by diverticula—pouches in the colon wall—can result in massive bleeding. Finally, as one gets older, abnormalities may develop in the blood vessels of the large intestine, which may result in recurrent bleeding.

Patients taking blood thinning medications (warfarin/Aspirin) may have bleeding from the GI tract.

### **How is bleeding in the digestive tract recognized?**

The signs of bleeding in the digestive tract depend upon the site and severity of bleeding. If blood is coming from the rectum or the lower colon, bright red blood will coat or mix with the stool. The stool may be mixed with darker blood if the bleeding is higher up in the colon or at the far end of the small intestine. When there is bleeding in the esophagus, stomach, or duodenum, the stool is usually black or tarry. Vomited material may be bright red or have a coffee-grounds appearance when one is bleeding from those sites

If sudden massive bleeding occurs, a person may feel weak, dizzy, faint, short of breath, or have crampy abdominal pain or diarrhea. The patient may become very pale. If bleeding is slow and occurs over a long period of time, a gradual onset of fatigue, lethargy, shortness of breath, and pallor from the anemia will result.

### **Endoscopy**

Endoscopy is a common diagnostic technique that allows direct viewing of the bleeding site. Because the endoscope can detect lesions and confirm the presence or absence of bleeding, doctors often choose this method to diagnose patients with acute bleeding. The endoscope is a flexible instrument that can be inserted through the mouth or rectum. The instrument allows the

doctor to see into the esophagus, stomach, duodenum (esophago-duodenoscopy), colon (colonoscopy), and rectum (sigmoidoscopy); to collect small samples of tissue (biopsies); to take photographs; and to stop the bleeding.

Small bowel endoscopy, or enteroscopy, is a procedure using a long endoscope. This endoscope may be used to localize unidentified sources of bleeding in the small intestine.

A new diagnostic instrument called a capsule endoscope is swallowed by the patient. The capsule contains a tiny camera that transmits images to a video monitor. It is used most often to find bleeding in portions of the small intestine that are hard to reach with a conventional endoscope.

### **How is bleeding in the digestive tract treated?**

Endoscopy is the primary diagnostic and therapeutic procedure for most causes of GI bleeding. Active bleeding from the upper GI tract can often be controlled by injecting chemicals directly into a bleeding site with a needle introduced through the endoscope. A physician can also cauterize, or heat treat, a bleeding site and surrounding tissue with a heater probe or electrocoagulation device passed through the endoscope. Endoscopic techniques do not always control bleeding. Sometimes angiography may be used. However, surgery is often needed to control active, severe, or recurrent bleeding when endoscopy is not successful.

Once bleeding is controlled, medicines are often prescribed to prevent recurrence of bleeding. Medicines are useful primarily for *H. pylori*, esophagitis, ulcer, infections, and irritable bowel disease. Medical treatment of ulcers, including the elimination of *H. pylori*, to ensure healing and maintenance therapy to prevent ulcer recurrence can also lessen the chance of recurrent bleeding.

Removal of hemorrhoids by banding or various heat or electrical devices is effective in patients who suffer hemorrhoidal bleeding on a recurrent basis. Endoscopic injection or cautery can be used to treat bleeding sites throughout the lower intestinal tract.

Adapted from the National Digestive Diseases Information Clearinghouse